



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,078	04/20/2001	Ping Sheng Zhang	29876/37280	2715

4743 7590 11/04/2002

MARSHALL, GERSTEIN & BORUN  
6300 SEARS TOWER  
233 SOUTH WACKER  
CHICAGO, IL 60606-6357

[REDACTED] EXAMINER

MCDERMOTT, KEVIN

[REDACTED] ART UNIT

[REDACTED] PAPER NUMBER

3635

DATE MAILED: 11/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Applicant No.	Applicant(s)
	09/839,078	ZHANG ET AL.
	Examiner McDermott, Kevin	Art Unit 3635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.  
 2a) This action is FINAL.                  2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-12 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) 1-12 is/are rejected.  
 7) Claim(s) \_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 11) The proposed drawing correction filed on \_\_\_\_ is: a) approved b) disapproved by the Examiner.  
     If approved, corrected drawings are required in reply to this Office action.  
 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.  
 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a) The translation of the foreign language provisional application has been received.  
 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

Claims 1, 2, 4, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Penland.

Regarding claim 1, Penland discloses in figures 1 and 2 and column 3, lines 1-65, mat units 10 comprised of a first layer 12 of parallel wooden boards 16 of substantially uniform length. Each board 16 is positioned parallel to an adjacent board to form a flat first layer 12. Mat units 10 are further comprised of a second layer 14, also formed from a plurality of spaced parallel boards 26 of uniform length and being aligned with one another to form a series of parallel boards connected substantially perpendicular to the boards of the first layer 12. Column 4, lines 34-46, discloses second layer 14 having locking tabs 32 and corresponding side locking slots 34, such that the mats 10 may be locked together. Examiner considers lumber cut from trees, such as the boards 16, 26, to be cut along the grain of the tree during manufacturing.

Examiner considers the mats 10 to constitute the claimed planks (strips according to the new terminology), the boards 16, 26 to constitute the claimed strips (elongate members according to the new terminology), the grain of boards 16 to extend in the longitudinal direction of the mat 10, and the grain of board 26 to extend transversely to the longitudinal direction of the mat 10.

Regarding claim 2, Penland discloses in column 2, lines 43-44, using wooden boards.

Regarding claims 4 and 5, Examiner considers the locking tabs 32 and locking slots 34, together, as constituting a tongue and groove relationship.

***Claim Rejections - 35 USC § 103***

Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Penland in view of Burlant.

Penland's disclosure is discussed above. However, Penland does not disclose disposing acrylic urethane or aluminum oxide on wood flooring strips.

Burlant discloses in column 1, lines 31-40, and column 2, lines 11-34, providing wood with a urethane resin and vinyl monomer coating to form a decorative or abrasion resistant coating. The vinyl monomer includes an acrylic monomer.

Therefore, Examiner considers it obvious to one of ordinary skill in the art at the time the invention was made to dispose a wood coating made of acrylic urethane on the wood boards 16, 26 of Penland. One of ordinary skill would be motivated to make such a modification to increase the abrasion resistance of all the wood board 16, 26 faces.

Claim 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Penland in view of Chen.

Penland's disclosure is discussed above. However, Penland does not disclose disposing aluminum oxide on wood flooring strips.

Chen discloses disposing aluminum oxide on floor surfaces. Therefore, Examiner considers it obvious to one of ordinary skill in the art at the time the invention was made to dispose aluminum oxide on the wood boards 16, 26 of Penland to increase the abrasion resistance of the flooring.

Art Unit: 3635

Claims 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Penland in view of Burlant and further in view of Wu.

Penland's disclosure is discussed above. However, Penland does not disclose disposing acrylic urethane on wood flooring strips or using bamboo flooring strips in lieu of wood.

Burlant discloses in column 1, lines 31-40 and column 2, lines 11-34, providing wood with a urethane resin and vinyl monomer coating to form a decorative or abrasion resistant coating. The vinyl monomer includes an acrylic monomer.

Wu discloses, in column 1, lines 14-15, a wooden or bamboo floor. Therefore, Examiner considers it obvious to one of ordinary skill in the art at the time the invention was made to make the wood boards 16, 26 of Penland from bamboo and to dispose a wood coating made of acrylic urethane on the wood boards 16, 26. One of ordinary skill would have been motivated to make such a modification to increase the abrasion resistance of all of the wood board 16, 26 faces.

#### ***Response to Arguments***

Applicant's arguments filed 9/5/02 have been fully considered but they are not persuasive.

Applicant has amended claims 1-12 by substituting "strip" for "plank", and substituting "flooring strip" (or an equivalent) for "strip".

Examiner does not consider the terminology changes to differentiate the invention as claimed from Penland. Because Penland discloses the structural features

of the claimed invention, Examiner considers Penland as capable of being used for the same purposes.

Applicant also asserts that Penland teaches that the mat units 10 include wooden boards that each constitute a hard wooden boards eight inches wide by two inches thick, and that one of ordinary skill in the art would not reasonably interpret or consider the mat units 10 to constitute a "plank".

As discussed above, because Penland discloses the structural features of the claimed invention Examiner considers it capable of being used for the same purposes.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 3635

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Kevin McDermott, whose telephone number is 703-308-8266.



Carl D. Friedman  
Supervisory Patent Examiner  
Group 3600

KM 10/31/02